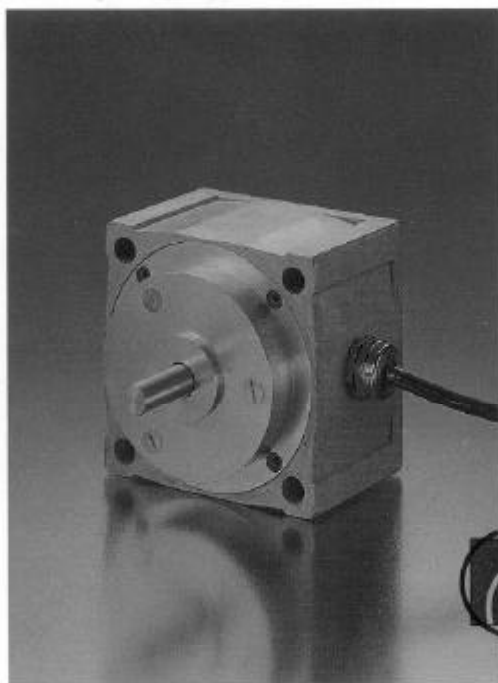


*Penny+Giles*

**FIRST**

IN MEASUREMENT  
& CONTROL

POSITION SENSORS



Penny & Giles industrial angular position sensors are designed to provide reliable performance in the most arduous operating conditions. The instrument can be specified either as a voltage dividing potentiometer incorporating the high performance advantages of Penny & Giles hybrid track technology, or for variable resistance applications, with a wire-wound track. Penny & Giles has a long established capability in design and manufacture for measurement and control projects and offers a comprehensive product range from stock, plus an efficient custom-build service.

**INDUSTRIAL ANGULAR  
POSITION SENSOR**

- Two standard models available
  - with a hybrid track for use in the voltage divider mode
  - with a wire-wound track for variable resistance applications

- Wide range of resistance and electrical operating angles
- Purpose designed for use in rugged industrial environments
- Stainless steel shaft & zinc alloy body

- Sealed to IP65
- Infinite resolution with hybrid track
- Range of sensors available ex-stock

# INDUSTRIAL ANGULAR POSITION SENSOR – IAPS 762

## SPECIFICATION

Track technology  
Electrical angle  $\pm 2^\circ$   
Resistance  $\pm 10\%$   
Independent linearity  
Power dissipation at  $20^\circ\text{C}$   
Applied voltage maximum  
Starting torque – max  
Resolution  
Operating temperature  
Output smoothness  
Insulation resistance  
Operating mode  
Wiper circuit impedance  
Life at 3Hz over  $\pm 30^\circ$   
Mechanical angle

Hybrid (H)

$355^\circ$   
 $5\text{k}\Omega$   
 $\pm 0.5\%$   
3W  
122V  
300gm cm  
Virtually infinite  
 $-20^\circ\text{C}$  to  $+85^\circ\text{C}$   
To MIL-R-39023 grade C 0.1%  
 $>50\text{M}\Omega$  at 500Vd.c.  
Voltage divider only  
See note below  
 $>100 \times 10^6$  cycles  
Continuous  $360^\circ$

Hybrid (H)

$90^\circ$   
 $1.3\text{k}\Omega$   
 $\pm 2\%$   
0.8W  
32V  
300gm cm  
Virtually infinite  
 $-20^\circ\text{C}$  to  $+85^\circ\text{C}$   
To MIL-R-39023 grade C 0.1%  
 $>50\text{M}\Omega$  at 500Vd.c.  
Voltage divider only  
See note below  
 $>100 \times 10^6$  cycles  
Continuous  $360^\circ$

Wirewound (W)

$355^\circ$   
 $2\text{k}\Omega$   
 $\pm 0.5\%$   
2W  
63V  
300gm cm  
2.9 turns per degree  
 $-20^\circ\text{C}$  to  $+85^\circ\text{C}$   
Not applicable  
 $>50\text{M}\Omega$  at 500Vd.c.  
Variable resistance or voltage divider  
Not applicable  
 $>50 \times 10^6$  cycles  
Continuous  $360^\circ$

## OPTIONS

Electrical angle – any up to  $\uparrow$   
Resistance  $\pm 10\%$   
Linearity to  
Resolution  
Taps up to

$357^\circ$

$2\text{k}\Omega$  to  $20\text{k}\Omega$  over full range

$\pm 0.1\%$

Virtually infinite

3 maximum

$\uparrow$  Power dissipation derates with lower than standard electrical angles

$\uparrow\uparrow$  Depending on resistance

$358^\circ$

$70\Omega$  to  $50\text{k}\Omega$

$\pm 0.15\%$

Up to 10 turns/ $\uparrow\uparrow$

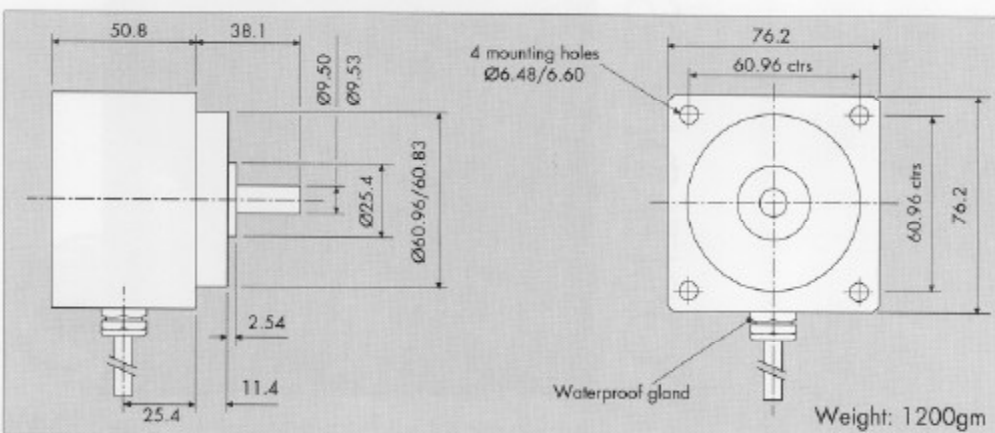
3 maximum

## EX-STOCK

Instruments normally available from stock

762H/355/5K and 762H/90/1.3K

## DIMENSIONS



## ORDERING INFORMATION

### Order Code

Track technology  
Electrical angle  
Resistance

### Example

For linearity, taps and resolution options please contact Penny & Giles sales office

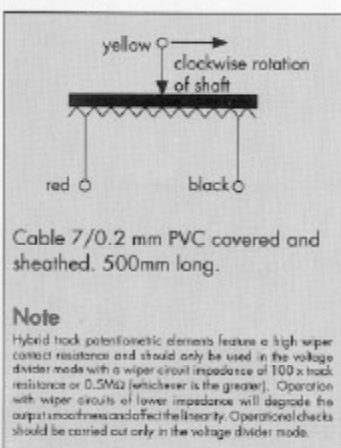
When you wish to order or obtain a quotation please code your requirements as below and state the quantity

IAPS 762 / H / 355 / 5K

H or W	Standard value or options	Standard value or options

IAPS 762H/355/5K is the order code for a hybrid track industrial sensor with a  $355^\circ$  electrical angle and  $5\text{k}\Omega$  resistance.

## ELECTRICAL CONNECTIONS



### WEB SITE

[www.pennyandgiles.com](http://www.pennyandgiles.com) [www.penny-giles.de](http://www.penny-giles.de)

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